

MOBILE TERMINAL HAVING MULTIPLE DISPLAY UNITS AND DATA HANDLING METHOD FOR THE SAME

PRIORITY

[0001] This application claims the benefit under 35 U.S.C. § 119(a) of a Korean patent application filed on Feb. 10, 2010 in the Korean Intellectual Property Office and assigned Serial No. 10-2010-0012434, the entire disclosure of which is hereby incorporated by reference.

BACKGROUND OF THE INVENTION

[0002] 1. Field of the Invention

[0003] The present invention relates to a mobile terminal. More particularly, the present invention relates to a mobile terminal having multiple display units and a data handling method for the same.

[0004] 2. Description of the Related Art

[0005] Thanks to recent advances in battery technology that have reduced battery size while maintaining the same capacity, mobile terminals are now capable of providing a variety of additional functions. For example, a typical mobile terminal supports optional functions, such as playback of audio and video files containing music or educational materials, or capturing still images or moving images using a still or video camera.

[0006] The mobile terminal may support various types of voice and data communication including mobile communication with a base station, short-range communication with a nearby device, and Internet access.

[0007] For portability reasons, mobile terminals tend to have a small display area. Although many schemes have been proposed to enlarge the display area, the amount of data displayable on a single display unit is restricted. Hence, to overcome this restriction, it is necessary to develop a mobile terminal and a related method of operating a mobile terminal that enable appropriate presentation of data associated with application programs.

SUMMARY OF THE INVENTION

[0008] An aspect of the present invention is to address at least the above-mentioned problems and/or disadvantages and to provide at least the advantages described below. Accordingly, an aspect of the present invention is to provide a mobile terminal having multiple display units and a data handling method for the same that perform active and dynamic presentation of data in concert with activation of various application programs to enlarge the display area seen by the user.

[0009] In accordance with an aspect of the present invention, a data handling method for a mobile terminal having multiple display units is provided. The method includes, selecting a particular application program, examining a presentation attribute of the selected application program, and performing, according to the presentation attribute, output control to output data generated by activation of the selected application program on at least one of the multiple display units.

[0010] In accordance with another aspect of the present invention, a mobile terminal having multiple display units is provided. The terminal includes, a display means having multiple display units, a storage unit for storing at least one application program that outputs data on at least one of the

display units when activated, and a control unit for examining a presentation attribute of an application program selected according to an input signal or preset schedule information, and for controlling at least one of the display units to output data generated by the selected application program after activation according to the presentation attribute.

[0011] According to an aspect of the present invention, a mobile terminal having multiple display units and a data handling method for the same enable various data to be presented on the individual display units according to properties of application programs. Hence, the user may use application programs of the mobile terminal in a more interactive and dynamic manner.

[0012] Other aspects, advantages, and salient features of the invention will become apparent to those skilled in the art from the following detailed description, which, taken in conjunction with the annexed drawings, discloses exemplary embodiments of the invention.

BRIEF DESCRIPTION OF THE DRAWINGS

[0013] The above and other aspects, features, and advantages of certain exemplary embodiment of the present invention will be more apparent from the following description taken in conjunction with the accompanying drawings, in which:

[0014] FIGS. 1A and 1B illustrate an external appearance of a mobile terminal according to an exemplary embodiment of the present invention;

[0015] FIG. 2 is a block diagram of a mobile terminal according to an exemplary embodiment of the present invention;

[0016] FIG. 3 illustrates a configuration of a control unit in a mobile terminal according to an exemplary embodiment of the present invention;

[0017] FIG. 4 is a flowchart of a data handling method for a mobile terminal according to an exemplary embodiment of the present invention;

[0018] FIG. 5 illustrates output of application data in relation to a link-view presentation attribute according to an exemplary embodiment of the present invention;

[0019] FIG. 6 illustrates output of application data in relation to a total-view presentation attribute according to an exemplary embodiment of the present invention;

[0020] FIG. 7 illustrates output of application data in relation to an execution-view presentation attribute according to an exemplary embodiment of the present invention;

[0021] FIG. 8 illustrates a user interface feature for setting a presentation attribute according to an exemplary embodiment of the present invention;

[0022] FIG. 9 illustrates changes in application data presentation according to an exemplary embodiment of the present invention; and

[0023] FIG. 10 illustrates changes in application data presentation according to an exemplary embodiment of the present invention.

[0024] Throughout the drawings, it should be noted that like reference numbers are used to depict the same or similar elements, features, and structures.

DETAILED DESCRIPTION OF EXEMPLARY EMBODIMENTS

[0025] The following description with reference to the accompanying drawings is provided to assist in a comprehen-